

REMARKS

The application has been amended to place the application in condition for allowance at the time of the next Official Action.

The specification is amended to make an editorial change therein on page 16, line 14, wherein the base line is referring to element Z and the terminal line is referring to element X consistent with the disclosure on page 16, lines 3-6 and 11.

Claims 1-9 are pending in the application.

Claims 1-9 were rejected under 35 USC §112, second paragraph as being indefinite. That rejection is respectfully traversed.

The position set forth in the Official Action is that the recited "the length L_{BC} of the boundary line between the composite material layer (B) and the porous layer (C) is in the range of 1.2 mm to 2.5 mm" is unclear and a similar recitation with respect to the boundary line between composite material layer (D) and porous layer (C) is also unclear.

Figures 5-1 and 5-2 are submitted herewith for explanatory purposes only and show a welded product having three layers A, B and C. A is the lighter area and C is the darker area with B the mixed area therebetween. As disclosed on page 16, lines 1-26 of the application as filed, a line is drawn by

connecting the terminals of the layer (A). This line is referred to as terminal line X. Only one end of terminal line X is shown in the figure. As further disclosed, a line starting from the terminal line X and crossing the terminal line X at a right angle is drawn toward the layer (C). This line is referred to as right-angled line Y. A line connecting the points crossing the right-angled line at a distance equivalent to the thickness of the sheet-like material towards layer (C) side from the terminal line is drawn. This line is referred to as base line Z. Lines Y divide the zones into plural sections a-f each having a length of 0.4 mm as set forth on page 9, lines 3-12 between terminal line X and base line Z. Each section of the zone is measured using, for example, a curvimeter or image processing unit along the "coastline" as disclosed on page 15, lines 20-21. The maximum value of each section is regarded as L_{BC} . As seen in Figure 5-2, section a has the largest coastline and thus the length of section a would be the maximum length equal to L_{BC} .

The same analysis is used to determine the length L_{DC} of the boundary line between composite material layer (D) and porous layer (C).

As the length of the boundaries L_{BC} and L_{DC} as defined by the claims are consistent with what was originally disclosed, the claims are believed to recite what applicants regard as the invention. Accordingly, withdrawal of the rejection under 35 USC §112, second paragraph, is respectfully requested.

Claims 1-9 were rejected as unpatentable over LYNN et al. U.S. Publication No. 2002/0148764. That rejection is respectfully traversed.

Independent claims 1 and 2 are amended and recite a non-porous material and a porous material. Some voids of the porous material, which is left unmelted, are embedded by melted non-porous material.

By way of example, page 10, line 25 through page 11, line 5 of the application as filed (paragraph [0023] of the publication of the present invention (2005/0090172)), disclose that the non-woven polyester fabric is not sufficiently heated to a temperature to cause the fibers to melt. In addition, since the fibers have a melting point higher than the soft polyvinyl chloride, the fibers are left as is without melting. The melted soft polyvinyl chloride invades the voids between fibers, resulting in a composite material layer, in which the fibers are embedded by the material of the container.

Paragraphs [0040] and [0041] of LYNN describes a commingled melted matrix having a structure in which the sheet material and filter material are both melted and intermingled with respect to one another.

As LYNN does not disclose that the voids of the porous material, which is left unmelted, are embedded by melted non-porous material, LYNN does not disclose each of the limitations

of the present invention. Accordingly, *prima facie* obviousness has not been established.

Moreover, the position set forth in the Official Action that the length of the boundary line would have been obvious to one of ordinary skill in the art based on routine experimentation to arrive at an optimum thickness is not supported by the disclosure of LYNN.

The Court of Customs and Patent Appeals has held that a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable range of the variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

LYNN discloses several Examples and Comparative Examples wherein the joining process affects the structure of the products. For example, the welding condition such as the welding time and positive electrode current value are important to obtain the weld line of LYNN.

LYNN does not recognize the relation between the boundary line length and resistance to delamination. Accordingly, based on the disclosure of LYNN, one of ordinary skill in the art would not recognize the boundary line length as a result-effective variable that might be optimized through routine experimentation. Accordingly, the recited boundary line

length of between 1.2 mm to 2.5 mm would not have been obvious in view of LYNN.

In view of the above, it is apparent that the recited structure distinguishes over LYNN and the recited boundary line length would not have been obvious in view of LYNN. Accordingly, claims 1-9 are believed patentable over LYNN.

Claims 1-9 were rejected under 35 USC §103(a) as being unpatentable over OKA et al. U.S. Publication No. 2004/0251195. That rejection is respectfully traversed.

In order for a reference to be applied under §103, that reference must first be available under one of the sections of 35 USC §102.

In the present case, OKA is a national stage application of PCT/JP01/05964 which was filed on July 10, 2001.

MPEP §706.02(f)(1)(example 5) applies in this instance and provides that references based on the national stage of an international application filed on or after November 29, 2000 and which were not published in English under PCT Article 21(II) may be applied under 35 USC §102(a) or (b) as of their publication dates, but never under 35 USC §102(e).

A copy of the cover page of WO 02/04045 evidencing that OKA was published in Japanese and indicating the publication date of January 17, 2002 is submitted herewith. Thus, OKA is not prior art under §102(e). §102(a) and §102(b) are discussed below.

As to OKA with respect to §102(b), the present application is a national phase application of PCT/JP03/00106, filed January 9, 2003 and is entitled to such date as a U.S. filing date. Since this date is less than one year before the publication of WO 02/04045, OKA would not be prior art under 35 USC §102(b).

The only section under which OKA could be prior art is 35 USC §102(a). Applicants submit herewith a verified English translation of Japanese Application No. 2002-2851 filed January 9, 2002 to perfect the claim to priority and establish January 9, 2002 as a priority date. As this date antedates the January 17, 2002 publication date, which is OKA's earliest publication date, OKA is no longer available as a prior art reference. Therefore, the above-noted rejection over OKA should be withdrawn.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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A handwritten signature in cursive script, reading "Liam McDowell".

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APPENDIX:

The Appendix includes the following items:

- Figures 5-1 and 5-2
- verified English translation of Japanese Application No. 2002-2851 filed January 9, 2002
- copy of the cover page of WO 02/04045 indicating OKA's earliest publication date of January 17, 2002



5-1

line X

line Z



line Y

5-2

